

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number  
**WO 2005/071894 A1**

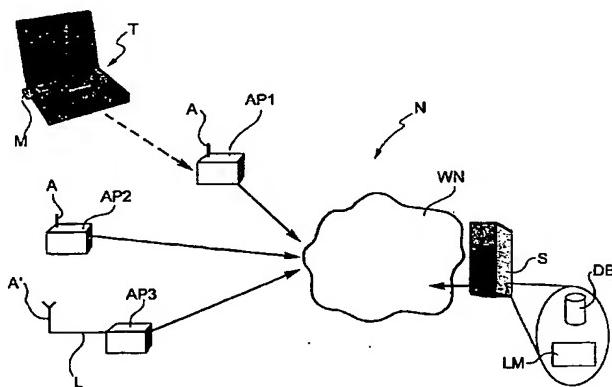
- (51) International Patent Classification<sup>7</sup>: **H04L 12/28**, **H04Q 7/38**
- (21) International Application Number: **PCT/IB2003/006146**
- (22) International Filing Date: **23 December 2003 (23.12.2003)**
- (25) Filing Language: **Italian**
- (26) Publication Language: **English**
- (71) Applicant (*for all designated States except US*): **TELECOM ITALIA S.P.A.** [IT/IT]; Piazza Degli Affari, 2, I-20123 Milano (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **CAPUZELLO, Alessandro** [IT/IT]; Telecom Italia S.p.A., Via G. Reiss Romoli, 274, I-10148 Torino (IT). **FILIZOLA, Davide** [IT/IT]; Telecom Italia S.p.A., Via G. Reiss Romoli, 274, I-10148 Torino (IT). **COLONNA, Massimo** [IT/IT]; Telecom Italia S.p.A., Via G. Reiss Romoli, 274, I-10148 Torino (IT).
- (74) Agent: **GIANNESI, Pier, Giovanni; Pirelli & C. S.p.a.**, Viale Sarca, 222, I-20126 Milano (IT).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,*

*[Continued on next page]*

(54) Title: **METHOD AND SYSTEM FOR LOCATING A TERMINAL IN A WIRELESS TELECOMMUNICATIONS NETWORK, COMPUTER PROGRAM PRODUCT THEREFOR**



(57) **Abstract:** A method is disclosed for locating a terminal (T) in a local wireless telecommunications network (N), adapted to provide an estimated position of the terminal (T) depending on a set of configuration data, and a set of measuring data indicating whether the terminal (T) belongs to a subset of said coverage areas and acquired from terminal (T) or network (N). The set of configuration data comprises a plurality of data bases of configurations, each one having a respective weight function, and the set of measuring data comprises a plurality of measuring types, depending on the type of terminal. The method comprises: associating, to every combination of a data base of configurations and a measuring type, a respective locating procedure corresponding to an accuracy value of the locating estimation; and actuating the locating procedure related to a combination selected by executing a related processing program. The invention also deals with a processing system and a processing program or group of programs that can be executed by the system, arranged to perform the above method.



*KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

— of inventorship (Rule 4.17(iv)) for US only

**Published:**

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*